



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

**DIPLOMA IN CIVIL ENGINEERING
DIPLOMA IN ARCHITECTURE**

EBC 2318: CONSTRUCTION MANAGEMENT I

END OF SEMESTER EXAMINATION

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer booklet*
- *Mathematical tables/Calculator*

This paper consists of **FIVE** questions

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

SECTION A (COMPULSORY)

Question 1

- a) (i) State **FIVE** parties involved in the building process (2 ½ marks)
- (ii) Briefly explain **TWO** duties and responsibilities for each party mentioned in Q1 (a) (i) above (10 marks)
- (iii) State **FIVE** factors that influence planning techniques to be employed during contract Planning (2 ½ marks)
- (iv) Briefly illustrate a method statement for (any) substructure works (10 marks)
- (v) Briefly explain **TWO** major shortcomings of a bar chart as a tool during pre-tender Programming (5 marks)

SECTION B (Answer any TWO questions from this section)

Question 2

- a) (i) Define a float (2 marks)
- (ii) Briefly explain **TWO** purposes of a float (4 marks)
- b) Use the following diagram to answer questions (b) (i) and (ii)

Event	Description	Duration (days)	Earliest		Latest		Critical path	Total float
			Start	Finish	Start	Finish		
0 – 1	Site preparation		0	5	0	5		
1 – 2	Excavation of drain & trenches		5	7	5	7		
1 – 3	Excavation of foundation trench		5	8	8	11		
2 – 3	Excavation of man holes		7	11	7	11		
3 – 4	Concreting		10	13	12	15		
3 – 5	Leveling		14	17	15	18		

- (i) Fill the gaps in the above table (9 marks)
- (ii) Determine duration of the above project (5 marks)

Question 3

- a) (i) Define an organization (2 marks)
- (ii) Briefly illustrate a shallow organization structure. (3 marks)

- b) (i) Briefly explain **TWO** advantages of Shallow organization structure over Deeper (military) Structure. (2 marks)
- (ii) Briefly explain **FOUR** factors that influence's a leader span of control (4 marks)
- c) (i) Differentiate between lateral and direct relationships (4 marks)
- (ii) Briefly explain how number of employees influences span of control (3 marks)
- (iii) State **FOUR** applications of Gantt (bar) chats (2 marks)

Question 4

- a) Outline **SIX** essential that make a contract valid (6 marks)
- b) Briefly explain the Bill of Quantities contract (4 marks)
- c) Briefly describe **FIVE** contract document (10 marks)

Question 5

- a) (i) Briefly explain **FIVE** ways a contract may be terminated (5 marks)
- (ii) State any **FIVE** types of contracts normally used in construction (5 marks)
- b) Briefly explain any **FIVE** ways to structure an organization (business). (10 marks)